

FM-LPS-420B Series Velocity Transducer

Loop Powered, Velocity 4-20 mA Output Vibration Sensor

The Forbes Marshall FM-LPS-420B series transducers are internally amplified accelerometers, i.e. two wire loop powered 4-20mA transducers. The purpose of the 4-20 mA analogue current loop is to transmit the signal from an analogue vibration sensor over a distance in the form of a current signal. These accelerometers output a low voltage (mV) which is proportional to the overall vibration of the equipment or machinery they are monitoring. This is converted to a proportional output current, with the range of 4-20 mA (4 mA normally representing the sensor's zero-level output, and 20 mA representing the sensor's full-scale output). Only two wires are required to send the current signal and also supply power to the sensor. A loop supply voltage is used to power a remote sensor. The remote sensor regulates the loop current such that the loop current represents the value of the parameter being measured by the sensor. This series is used by the process monitor/ controller to record or distribute the parameter being measured.



Applications

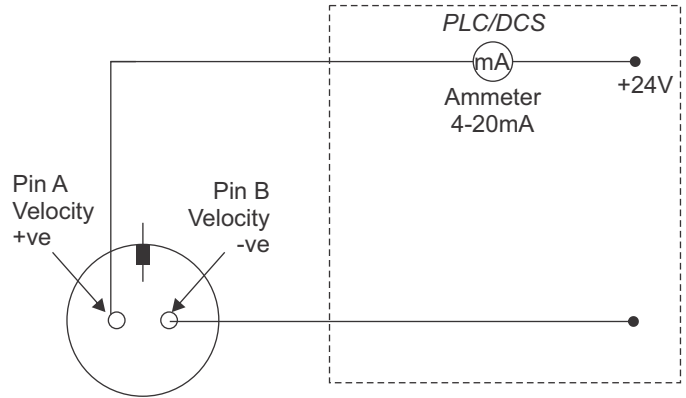
- Fans
- Motors
- Pumps
- Compressors
- Centrifuges
- Conveyors
- Air Handlers
- Gearboxes
- Rolls
- Dryers
- Presses
- Cooling
- VAC
- Spindles
- Machine Tooling
- Process Equipment

Features

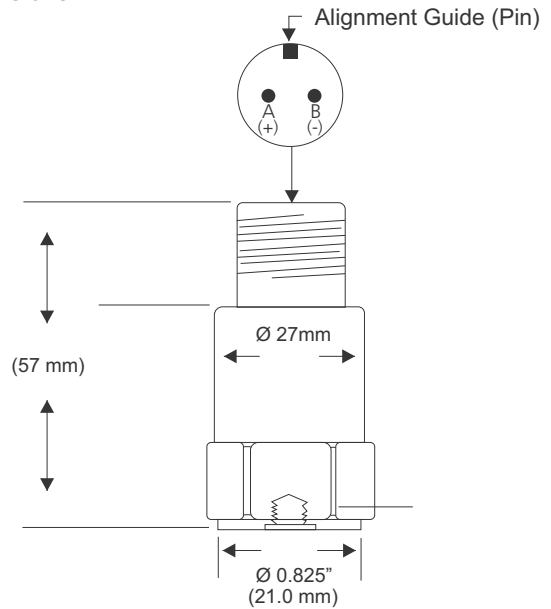
- Very wide frequency
- Wide amplitude range
- Broad temperature range
- Velocity or displacement output available
- Rugged industrial design
- No need of signal conditioner as it gives 4-20mA directly to connect PLC/DCS

Technical Specifications	
Output	4-20 mA DC proportional to RMS velocity/peak velocity (mm/sec)
Velocity range	See table below
Frequency response	2 Hz to 1 kHz +/- 3dB
Operating temperature range	(-25 to 90°C)
Transverse sensitivity	Less than 5%
Supply voltage range	12-32 Volts DC (4-20mA)
Case material	Stainless steel, base isolated
Weight	140gms (nominal)
Sealing	Ip67
Mounting torque	8Nm
Mounting connector	MIL
Mounting hardware	M6X1 mm
Power input	20-32 VDC
Analogue output	Full scale output of 4-20 mA
Operation	Filters the signal, and normalizes the output to the specified full scale output. Performs a true RMS conversion and transmits this data in a 4-20 mA format. (If RMS is chosen)

System Connection



Dimensions



Ordering Information

FM-LPS-420-XXX-XX1

FM-LPS-420	Range	Measurement Unit	Cable Type	Thread Size
10B	0-10	1 RMS(mm/sec)	2 pin Connector	1 1/4"-28 UNF female
20B	0-20	2 Pk (mm/sec)	5mtr integral polyurethane cable	
25B	0-25		10mtr integral polyurethane cable	
50B	0-50			



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